

Robinson conducted a secondary analysis of the data to explore "boredom at school." The sample of 4,618 students between the age of 13 to 16 from secondary schools in England and Wales was the population for both the first and second stage of the study.

A questionnaire was given for 17 school subjects, requiring the students to select those they thought useful, useless or neither and the subjects they thought boring, interesting or neither. A bore score was calculated and cross-tabulated across socioeconomic groupings. The highest bore scores were related to the higher uselessness indices consistent with Duffy's experimental studies (1972) showing association between reported interest and value.

In the analysis, he sought to specify some possible antecedents and consequences of boredom. Truancy was seen as one intermittent way of avoiding boredom, while leaving school as soon as possible finalized escape. A chronic history of failure and an expectation of future failure as well as competition had been suggested to increase boredom or anxiety states reported as boredom. Although there were no independent estimates of teacher interest and personal boredom, nor estimates of peer and parent interest and encouragement, the bored pupils were less likely to feel that others took an interest in them.

The most important feature of the model is its emphasis on the interdependence of the factors. Although Robinson could not diagnose boredom, other than by simply asking pupils whether or not they were bored, he felt boredom could be prevented by showing pupils that what is being taught is valuable and useful.

The empirical study of the social character of the peasants in a Mexican village, done by Fromm and Maccoby (1970), revealed that alcohol consumption or drunkenness was increased by the boredom of the peasants, and more so by the hopelessness of individuals who have no way to better their lives. It was found that alcoholism reflects the social pathology of the society and is in itself, a cause of violence.

Empirical Research Related to Purpose in Life  
and the Constructive-Destructive Variables  
of This Study

Purpose in Life and Social Participation

Doerries (1970) examined the relationship between participation in campus and community organizations and a sense of purpose in life among college students. The results indicated that students who participate in at least two organizations have significantly higher PIL scores than those who belong to only one or none ( $F = 22.27$ ;  $p < .001$ ). The research did not take into account the fact that an individual may have a high PIL and belong to a single organization to which he is wholly committed, though this was an important consideration, significant differences were obtained despite the fact that some individuals with high PIL were grouped with students in the low participation category.

Clark (1973), in the study of junior and senior high school students, found among students who participated in extracurricular activities there existed a higher purpose in life than for those who did not participate. It was further indicated by the individual items on the PIL that having goals in life and meaning for existence was directly related to participation in extracurricular activities for students who never use



or infrequently use drugs. Students who used drugs infrequently and participated in extracurricular activities other than sports had more life goals and more meaning to existence than those who participated only in sports or who did not participate in extracurricular activities.

#### Purpose in Life and Attitude Toward School

Roberts' (1978) study, using 1,225 high school students of grades 9 through 12 found a significant relationship ( $r = +.50$ ,  $p < .001$ ) between PIL scores and attitude toward school.

#### Purpose in Life and School Absence

Clark's (1973) study of 8th-, 10th-, and 12th-grade students found a positive relationship between infrequent absenteeism and increased purpose in life scores among students who never or infrequently used drugs.

In an analysis of the individual items, students who were frequent users of drugs were found to be highly associated with enthusiasm for life and absenteeism. Decreasing absenteeism was associated with seeing each day new and different. Seeing each day as new and different was not distinct among the students who used drugs infrequently or frequently. Among frequent drug users, the relationship was somewhat reversed. Seeing each day new and different was associated more with increased absenteeism.

#### Purpose in Life and Alcohol Use

Roberts' (1978) study found significant differences in mean PIL scores among high school students as related to alcohol use. The data

indicated that high school students who do not drink alcoholic beverages (mean = 104.07) scored significantly higher than those who reported drinking "sometimes" (mean = 100.68) and those who reported drinking "a lot" (mean = 89.73).

### Purpose in Life and Sex

Research studies have differed in their reports as to the relationship of sex differences to mean PIL scores.

Crumbaugh (1964), Doerries (1974) and Padelford (1973) noted sex differences while Crumbaugh and Maholick (1968), Murphy (1966) and Roberts (1978) failed to relate sex differences to PIL scores.

Meier and Edwards (1974) examined age and sex differences among 200 subjects. The results reported PIL scores of the 13 - 15 age group differed significantly from the mean PIL scores of the 17 - 19 age group ( $p < .01$ ), 45 - 55 ( $p < .01$ ) and 65 and over ( $p < .01$ ) age groups from the mean PIL scores of the other age groups.

A fixed-effects two-way analysis of variance indicated that there were no significant sex differences on PIL scores ( $F = .54$ ;  $p < .05$ ); nor was there a significant age x sex interaction ( $F = 1.27$ ;  $p < .05$ ). The mean PIL scores for the males and females were 107.8 (SD = 14.0) and 109.3 (SD = 15.0) respectively.

Studies reported have been divided as to the relationship of age and sex; however, it has been found that when subjects are grouped according to specific age groups, a difference has been noted in mean PIL scores.



### Purpose in Life, Sex and Drug Involvement

Padelford (1973) investigated the relationship between drug involvement and purpose in life among 416 tenth-grade-middle and lower-middle class students of mixed ethnic origin. The students were administered the PIL test, a drug involvement survey and a general information questionnaire. A significant negative relationship was found between the extent of student drug involvement and their purpose in life ( $r = -.23$ ;  $p < .001$ ). The finding was confirmed for males and for Anglo-American subjects, but not for Mexican-American and other minority groups. The results of the hypotheses concerning drug involvement confirmed that: Drug involvement was significantly greater (1) for students with low purpose in life than for students with high purpose in life ( $p < .001$ ); (2) for male students than for female students ( $p < .001$ ). The results of the purpose in life hypotheses confirmed that: Purpose in life was significantly higher (1) for students reporting no drug involvement than for students reporting high drug involvement ( $p < .001$ ); (2) for female students than for male students ( $p < .001$ ).

Clark (1973) investigated the relationship between drug usage and Life Purpose of junior and senior high school students. The Purpose in Life Test and a Personal Data Chart were the instruments used to collect the data. The inverse relationship found between Purpose in Life and drug usage was independent of sex and grade level. For those students who used drugs infrequently, the relationship was not well defined. Regardless of the type of program students were in, college, vocational or general, students who never or infrequently used drugs responded

more positively to the item that they believed they were in control of their lives.

Roberts (1978) investigated the relationship of purpose in life, sex and drug use among 1,225 high school students. The PIL, Form C adaptation consisted of the 20 items of the original test and items pertaining to life style. Significant correlation was found between PIL scores and drug use ( $r = -.27, p < .001$ ). The correlation between PIL scores and sex was not found to be significant. Students who reported no drug involvement were found to have a mean PIL of 103.09, compared to Padelford's (1973) mean of 103.25, and Clark's (1973) mean for no drug involvement of 105.40. Roberts (1978) reported a mean PIL of 87.38 for the students with high drug involvement, compared to Padelford's (1973) mean of 93.67 and Clark's (1973) mean of 95.06 (in Roberts, 1978, p. 95).

This study indicated that students who reported high use of drugs seemed to experience existential vacuum more than students who use little or no drugs.

#### Purpose in Life, Drug Involvement and Father Relationship

Padelford (1973) expressed the views of other authorities as Pope (1971) and May (1972) (in Padelford, 1974) who felt that the lack of a strong father image with whom young males could identify was a precondition to illicit drug involvement. The results of the secondary phase of the study failed to reveal significant differences between the extent of drug involvement reported by students having a weak father image as opposed to those having a strong father image. It was



confirmed however that: Purpose in life was significantly higher for students having a strong father image as opposed to students having a weak father image. The two factors that significantly influenced the PIL scores were the reports from students who (1) recalled having a good rapport with their fathers prior to age eight and (2) from age nine to present.

### Summary

This chapter consisted of a review of the literature which was presented in three sections. The first section covered Erich Fromm's theory as related to the nature of man, the constructive and destructive ways he fulfills his needs as seen in the types of relationships within the family system and society, and freedom versus boredom.

The second section consisted of the psychometric measurement of Purpose in Life and the psychometric measurement of relatedness.

The third section consisted of research studies significant to adolescents and constructive-destructive behavior under the headings:

1. Theories and empirical studies related to family relationships and constructive-destructive behavior.
2. Theories and empirical studies related to boredom.
3. Empirical research related to Purpose in Life and the constructive-destructive variables of this study.



## Chapter 3

### METHODOLOGY

When the individual fails to attain a genuine expression of self, in the fulfillment of his needs through his interactions in the family and his social environment, he experiences a sense of uselessness and lack of purpose in life which leads him to seek compensation in ways that may be constructive or destructive (Fromm, 1947, 1973).

The purpose of this study was to obtain empirical knowledge about the relationship that exists between family adjustment, purpose in life and constructive-destructive behaviors among high school eleventh grade students.

#### Design

As the variables under investigation are to be examined after the fact and, therefore, not subject to experimental control, the design will be identified as ex-post-facto research as described by Kerlinger (1975):

Ex-post-facto research is systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable. Inferences about relations among variables are made without direct intervention from concomitant variation of independent and dependent variables. (p. 378)



### Null Hypotheses

Pursuant to the purposes of this study, five hypotheses were developed. All are stated in the null form. The .05 level of significance will be used as the criterion level for the acceptance or rejection of each hypothesis.

The following are the hypotheses:

$H_{1a}$ : There are no significant differences in the mean Purpose in Life Test scores (total and each of the 20 items) between adolescents identified as constructive and those who are identified as destructive.

$H_{1b}$ : There are no significant differences in the mean Purpose of Life Test scores (total and each of the 20 items) between males and females.

$H_{1c}$ : The difference between constructive and destructive means for males on the Purpose in Life Test (total and each of the 20 items) is the same as the difference between constructive and destructive means for females.

$H_{2a}$ : There are no significant differences in the mean Family Adjustment Test scores (total and each of the 10 subtests) between adolescents identified as constructive and those who are identified as destructive.

$H_{2b}$ : There are no significant differences in the mean Family Adjustment Test scores (total and each of the 10 subtests) between males and females.

$H_{2c}$ : The difference between the constructive and destructive

means for males on the Family Adjustment Test scores (total and each of the 10 subtests) is the same as the difference between the constructive and destructive means for females.

H<sub>3</sub>: There are no significant correlations between Purpose in Life total score and Family Adjustment total and subtest scores among those adolescents who have been identified as constructive.

H<sub>4</sub>: There are no significant correlations between Purpose in Life total score and Family Adjustment total and subtest scores among those adolescents who have been identified as destructive.

H<sub>5</sub>: There are no significant differences in the correlations between Purpose in Life total score and Family Adjustment total and subtest scores between adolescents identified as constructive and those who are identified as destructive.

### Instrumentation

#### The Purpose in Life Test

The Purpose in Life Test (PIL), developed by Crumbaugh and Maholick (1964) described in Chapter 2 was the instrument used to measure the degree to which the constructive and destructive groups experienced meaning in life and boredom. The split-half reliability of the PIL determined by Crumbaugh and Maholick (1968) using 120 subjects yielded a coefficient of .85, corrected by the Spearman-Brown formula to yield a coefficient of .92.

The total score and the 20 items of the scale were individually analyzed to assess whether the relationship would lend some significance



to differentiating between the constructive and destructive groups on the constructs of purpose in life and boredom as defined in Chapter 1 and amplified in Chapter 2.

### The Family Adjustment Test

The Family Adjustment Test (FAT) developed by Elias (1964) and described in Chapter 2, was the instrument used to measure Fromm's concept of relatedness or homeyness, the degree of perceived love. The split-half reliability of the FAT of 168 nonhomey, homey and general population subjects was found by Elias to be .97 when corrected for attenuation. The total score measuring homeyness-homelessness and the scores on the 10 subscales of the test, defined in Chapter 1 and amplified in Chapter 2, were used to measure the specific relationships and to assess which relationship or combination of relationships correlated most highly with constructive and destructive behavior.

### Population

The population from which the sample was drawn was the junior class originally consisting of 489 students in a high school population of 2200 students. The school is located in a satellite city of the Chicago metropolitan area and represents a cross-section of socioeconomic, ethnic groups and educational levels. The student population is subdivided as follows: eight-six percent as Caucasian, eight percent as Black and six percent as Hispanic.

### Sample Definition and Identification

A committee consisting of six staff members who knew all of the

students was obtained to identify the students to be classified as constructive and destructive. The members were three deans, two of whom were teachers and one presently the Guidance Department chairman; one police counselor who was a juvenile and public relations officer for the city police department; and two hall monitors who were part-time instructors.

A complete list of all juniors, consisting of name and ID number, and instructions were given to the members of the committee, prefaced by the statement that the students had been informed of the research and procedures of ID, age and sex and the exclusion of their personal identity as to how they scored. The committee was asked to select the most constructive and most destructive students within the class on the basis of their own written criteria. As an identification code, they were to place a "C" or "D" to the left of the ID number. When the selection was complete, they were to return the list and the written criteria or behaviors that were used to rate the students, as validation of the selection. On the basis of the criteria reported by the selection committee, the operational definition of constructive and destructive, as given in Chapter 1, was derived. Table 1 represents a comparison of Erich Fromm's types of family relationships that promote constructive-destructive behavior and the behaviors defined by the committee.

### Sample Population

The sample population consisted of 214 students from the junior class population that had been identified by the selection committee.



Table 1

Types of Relationships and Fulfillment of Needs Compared to Constructive and Destructive Behavior Defined in Study

	<u>Relatedness</u>	<u>Transcendence</u>	<u>Rootedness</u>	<u>Identity</u>	<u>Frame of Orientation</u>
<p>Constructive (Definition)</p> <p>↑</p> <p>LOVE</p> <p>↓</p> <p>Productive (Fromm's theory)</p>	<p>positive attitudes</p> <p>respect for others</p>	<p>good achievement</p> <p>good attendance</p>	<p>active in community</p> <p>extra-curricular activities</p>	<p>achievement goals</p> <p>follows conscience</p> <p>sets limits for self</p> <p>spontaneous activity</p>	<p>positive attitude about life</p> <p>striving toward goals</p>
	<p>mutual respect</p> <p>support</p> <p>care</p> <p>responsibility</p> <p>security</p> <p>conscience</p>	<p>motivation</p> <p>creating ideas</p>	<p>belongingness</p> <p>freedom</p> <p>equality</p> <p>affirmation of life</p>	<p>integrity</p> <p>independence</p> <p>freedom of choice</p> <p>conscience</p> <p>one's free will</p> <p>obedience within limits</p> <p>sense of "I"</p>	<p>reality</p> <p>seeks knowledge</p> <p>awareness of self</p> <p>goals and actions</p> <p>give meaning to existence</p>



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Table 1 (Continued)

	<u>Relatedness</u>	<u>Transcendence</u>	<u>Rootedness</u>	<u>Identity</u>	<u>Frame of Orientation</u>
Destructive Definition	negative attitude toward school and authority	poor attendance destructive to property	rebellion against authority non-participation in activities	conformity to group participates in drugs and alcohol ignores consequences	no preparation for future goals
Symbiotic	overindulgent → conformity and domineering → dependence				
Nonproductive Fromm's theory		destruction hate	feeling of inequality oppression and submission inability to cope mother attachment	pseudo-identity conformity lack of integrity lack of free will fails to follow conscience weakness withdrawn freedom from restrictions	represses goals illusions of goal lack of reason no meaning to life
withdrawal and destructive	frustrates → indifference toward others and subjugates → nonconformity alienated from feelings				



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The two groups, constructive and destructive, used in the study, each consisted of 107 students. The students were assigned to the groups in the order of receiving 6, 5, 4, 3, and 2 votes by the selection committee. These 107 students comprised the upper and lower 27 percent of the population who participated in the study.

### Procedure

The purpose of the investigation was explained verbally to the principal of the high school in which the study was to take place in September of 1977. In April of 1978, a six page summary of the investigation (Appendix A) was submitted to the principal to inform him of the procedures of the study and to obtain recommended changes. This summary was followed by an interview with the principal to discuss in more detail the proposed study. The principal initiated the contact with the department chairmen to enlist their cooperation, and also sent a letter to the committee chairman for this study, confirming his awareness of the study and his permission.

During the first week of May, 1978, the study was explained to the staff members who were to be asked to serve as the selection committee and a verbal agreement was obtained. A complete class roster, including ID number and student names, was obtained from the guidance office from which copies were made and distributed to the members of the committee with instructions (Appendix B).

As all juniors are enrolled in United States History and/or Government, interviews were scheduled with the chairmen of the Social Studies, Work Study and Bilingual Departments. As a follow-up from

the contact made by the principal, the study was briefly explained. Information regarding the number of sections of classes, scheduled time and class size and suggested date for testing of May 25th was obtained. Contact was made with each teacher to schedule a time to explain to the students the purpose of the study, as a means of allaying any anxiety and resistance on the test date.

Ten days prior to the scheduled test date a presentation was made to all classes, informing the students of the study, why it was being done, why their names were not important and why their ID numbers were being requested (Appendix C).

On the day prior to testing, envelopes containing the correct number of PIL and FAT test booklets for each class section to be used, including a copy of brief instructions, were distributed to the teachers (Appendices D, E, F).

On May 25, the Family Adjustment Test and the Purpose in Life Test (Appendix G) were administered by the teachers of the 25 class sections consisting of all juniors enrolled in either United States History or Government. The tests were completed during the class period and returned at the end of the day.

The class lists were obtained from the committee members who defined constructive and destructive behavior and who selected the students who were to form the two groups. On a separate class list, called a sample population list, the votes of each member were recorded to the left of the student's name.

From the population of 439 junior students tested, 40 of the students tests were discarded because of a test being incomplete, an ID number



being inaccurate or only one test being returned, which left a total population of 389 students from which the sample was to be drawn.

The student ID and names on the two instruments were matched with the ID and names of the students of the sample population list. The students were assigned to the two groups on the basis of 6 votes to a minimum of 2 votes by the members.

### Analysis of Data

The data obtained from the responses to the Purpose in Life Test and the Family Adjustment Test of the sample of 214 students was key-punched into computer cards for scoring and data analysis, utilizing the Statistical Package for the Social Sciences (SPSS) subprograms of analysis of variance, the Pearson correlation coefficient and the t-test for the Fisher Z transformation.

### Summary

The chapter contained a description of the methods and procedures used in the study to determine the relationship between purpose in life, family adjustment and constructive-destructive behavior. Included within the chapter were: the design used, the null hypotheses, the instruments used to collect the data, the population characteristics, the population sample selection, the procedures followed in conducting the study and collecting the data, the statistical program and the tests used for the analysis of the data. The following chapter presents the analysis of the data.

## Chapter 4

### ANALYSIS OF DATA

The purpose of this study was to obtain empirical knowledge about the relationship that exists between family adjustment, purpose in life and constructive-destructive behaviors among high school eleventh grade students.

The data for the present study was analyzed by the SPSS--subprograms of analysis of variance, the Pearson correlation coefficient and the  $t$ -test for the Fisher Z transformation. The complete results of the analyses are presented. The .05 level of significance was chosen to reject the null hypotheses.

#### Results of the Purpose in Life Test and the Constructive-Destructive Variable

##### Hypothesis 1

Hypothesis 1<sub>a</sub> states: There are no significant differences in the mean Purpose in Life Test scores (total and each of the 20 items) between adolescents identified as constructive and those who are identified as destructive.

Hypothesis 1<sub>b</sub> states: There are no significant differences in the mean Purpose in Life Test scores (total and each of the 20 items) between males and females.

Hypothesis 1<sub>c</sub> states: The difference between constructive and destructive means for males on the Purpose in Life Test (total and



each of the 20 items) is the same as the difference between constructive and destructive means for females.

A summary of the means for this hypothesis is presented in Table 2. A high score represents high purpose in life and a low score represents less purpose in life.



Table 2

Mean PIL Total and PIL Items by Group, by Sex

	N	PIL Total	PIL 1	PIL 2	PIL 3	PIL 4	PIL 5	PIL 6	PIL 7	PIL 8	PIL 9	PIL 10
Constructive	107	106.18	5.22	4.98	5.93	5.66	4.77	5.31	6.38	4.91	5.24	5.54
Destructive	107	96.57	4.78	4.45	5.15	5.20	4.65	4.90	5.68	4.51	4.85	4.72
Males	134	100.72	4.82	4.76	5.62	5.29	4.64	5.10	5.96	4.63	4.90	5.01
Females	80	102.46	5.30	4.64	5.40	5.56	4.81	5.11	6.16	4.84	5.30	5.34
Total	214	101.37										
Constructive M	58	104.52	4.98	5.09	6.05	5.57	4.64	5.14	6.29	4.76	5.09	5.43
Constructive F	49	108.14	5.51	4.86	5.78	5.78	4.92	5.51	6.49	5.08	5.43	5.67
Destructive M	76	97.83	4.70	4.51	5.29	5.08	4.65	5.07	5.70	4.53	4.75	4.68
Destructive F	31	93.48	4.97	4.29	4.81	5.48	4.65	4.48	5.65	4.45	5.10	4.81



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Table 2 (Continued)

	N	PIL Total	PIL 11	PIL 12	PIL 13	PIL 14	PIL 15	PIL 16	PIL 17	PIL 18	PIL 19	PIL 20
Constructive	107	106.18	4.99	4.34	5.91	5.01	4.77	5.51	5.77	5.63	4.70	5.63
Destructive	107	96.57	4.39	4.04	5.30	4.72	4.77	5.02	5.13	4.80	4.51	5.02
Males	134	100.72	4.58	4.05	5.46	4.93	5.04	5.32	5.49	5.25	4.58	5.31
Females	80	102.46	4.88	4.41	5.85	4.75	4.31	5.16	5.38	5.15	4.66	5.35
Total	214	101.37										
Constructive M	58	104.52	4.78	4.03	5.78	4.91	4.91	5.38	5.81	5.66	4.62	5.60
Constructive F	49	108.14	5.25	4.69	6.06	5.12	4.59	5.65	5.71	5.59	4.80	5.65
Destructive M	76	97.83	4.43	4.07	5.21	4.95	5.13	5.28	5.25	4.95	4.54	5.08
Destructive F	31	93.48	4.29	3.97	5.52	4.16	3.87	4.39	4.84	4.45	4.45	4.87



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Total Score

The subhypothesis for total score would be: (a) There are no significant differences in the mean purpose in life total score between adolescents identified as constructive and those who are identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 3.

Table 3  
Analysis of Variance  
PIL Total by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	4786.824	1	4786.824	16.834	0.001	SIG
Sex	0.008	1	0.008	0.000	0.999	NS
Group x Sex	764.841	1	764.841	2.690	0.098	NS
Residual	59714.625	210	284.355			
Total	65417.715	213	307.125			

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.



The difference between the constructive mean (106.18) and the destructive mean (96.57) was significant.

Item 1

For subhypothesis Item 1: "I am usually bored or exuberant, enthusiastic" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 4.

Table 4  
Analysis of Variance  
PIL Item 1 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	7.471	1	7.471	4.404	0.035	SIG
Sex	8.203	1	8.203	4.836	0.027	SIG
Group x Sex	0.796	1	0.796	0.469	0.999	NS
Residual	356.226	210	1.696			
Total	375.991	213	1.765			

\* Significant at the .05 level or less.

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was significant main effect for sex, and (c) there was no significant interaction between group and sex.

The difference between the constructive mean (5.22) and the destructive mean (4.78) was significant. The difference between the mean for the females (5.30) and the mean for the males (4.82) was significant.

#### Item 2

For subhypothesis Item 2: "Life to me seems: always exciting or completely routine" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 5.

Table 5  
Analysis of Variance  
PIL Item 2 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	SQUARE	F	PROB	SIG
Group	16.902	1	16.902	8.831	0.003	SIG
Sex	2.486	1	2.486	1.299	0.254	NS
Group x Sex	0.000	1	0.000	0.000	0.999	NS
Residual	401.932	210	1.914			
Total	419.602	213	1.970			

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was no significant mean effect for sex, and (c) there was no significant interaction between group and sex.

The difference between the constructive mean (4.98) and the destructive mean (4.45) was significant.

### Item 3

For subhypothesis Item 3: "In life I have: no goals or aims at all, or very clear goals and aims" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as



the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 6.

Table 6  
Analysis of Variance  
PIL Item 3 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	SQUARE	F	PROB	SIG
Group	36.429	1	36.429	21.379	0.001	SIG
Sex	6.649	1	6.649	3.902	0.047	SIG
Group x Sex	0.515	1	0.515	0.302	0.999	NS
Residual	357.836	210	1.704			
Total	397.191	213	1.865			

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was significant main effect for sex, and (c) there was no significant interaction between group and sex.

The difference between the constructive mean (5.93) and the destructive mean (5.15) was significant. The difference between the mean for males (5.62) and the mean for females (5.40) was significant.

#### Item 4

For subhypothesis Item 4: "My personal existence is: Utterly meaningless without purpose, or very purposeful and meaningful" the

hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 7.

Table 7  
Analysis of Variance  
PIL Item 4 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	9.040	1	9.040	5.049	0.024	SIG
Sex	4.270	1	4.270	2.385	0.120	NS
Group x Sex	0.474	1	0.474	0.265	0.999	NS
Residual	376.014	210	1.791			
Total	392.440	213	1.842			

Based on the analysis, it was concluded that (a) there was significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex

The difference between the constructive mean (5.66) and the destructive mean (5.20) was significant.

Item 5

For subhypothesis 5: "Every day is: constantly new and different, or exactly the same" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 8.

Table 8  
Analysis of Variance  
PIL Item 5 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	0.475	1	0.475	0.186	0.999	NS
Sex	1.145	1	1.145	0.449	0.999	NS
Group x Sex	0.944	1	0.944	0.370	0.999	NS
Residual	535.560	210	2.550			
Total	538.439	213	2.528			

Based on this analysis, it was concluded that (a) there was no significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.



Item 6

For subhypothesis 6: "If I could choose, I would: prefer never to have been born, or like nine more lives just like this one" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 9.

Table 9

Analysis of Variance  
PIL Item 6 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	9.211	1	9.211	4.770	0.028	SIG
Sex	0.176	1	0.176	0.091	0.999	NS
Group x Sex	10.961	1	10.961	5.676	0.017	SIG
Residual	405.543	210	1.931			
Total	425.727	213	1.999			

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was no significant main effect for sex, and (c) there was significant interaction between group and sex.

The difference between the constructive mean (5.31) and the destructive mean (4.90) was significant. The difference between constructive and destructive males ( $5.14 - 5.07 = .07$ ) is significantly different from the constructive and destructive females ( $5.51 - 4.48 = 1.03$ ).

#### Item 7

For subhypothesis 7: "After retiring, I would: do some of the exciting things I have always wanted to, or loaf completely the rest of my life" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis for this hypothesis is presented in Table 10.

Table 10  
Analysis of Variance  
PIL Item 7 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	24.475	1	24.475	11.336	0.001	SIG
Sex	0.324	1	0.342	0.158	0.999	NS
Group x Sex	0.746	1	0.746	0.345	0.999	NS
Residual	453.386	210	2.159			
Total	480.759	213	2.257			

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.

The difference between the constructive mean (6.38) and the destructive mean (5.68) was significant.

#### Item 8

For subhypothesis 8: "In achieving life goals I have: made no progress whatsoever, or progressed to complete fulfillment" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means



for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 11.

Table 11  
Analysis of Variance  
PIL Item 8 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	7.408	1	7.408	3.939	0.046	SIG
Sex	0.990	1	0.990	0.526	0.999	NS
Group x Sex	1.904	1	1.904	1.013	0.317	NS
Residual	394.907	210	1.881			
Total	406.442	213	1.908			

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.

The difference between the constructive mean (4.91) and the destructive mean (4.51) was significant.

#### Item 9

For subhypothesis 9: "My life is: empty, filled only with despair, or running over with exciting good things" the hypotheses are: (a) There

are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 12.

Table 12  
Analysis of Variance  
PIL Item 9 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	5.808	1	5.808	3.374	0.064	NS
Sex	5.761	1	5.761	3.346	0.065	NS
Group x Sex	0.000	1	0.000	0.000	0.999	NS
Residual	361.521	210	1.722			
Total	375.526	213	1.763			

Based on this analysis, it was concluded that (a) there was no significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.

#### Item 10

For subhypothesis 10: "If I should die today, I would feel that

my life has been: very worthwhile, or completely worthless" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 13.

Table 13  
Analysis of Variance  
PIL Item 10 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	32.447	1	32.447	12.612	0.001	SIG
Sex	1.716	1	1.716	0.667	0.999	NS
Group x Sex	0.174	1	0.174	0.068	0.999	NS
Residual	540.246	210	2.573			
Total	578.323	213	2.715			

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.

The difference between the constructive mean (5.54) and the



destructive mean (4.72) was significant.

### Item 11

For subhypothesis 11: "In thinking of my life, I: often wonder why I exist, or always see a reason for my being here" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 14.

Table 14

Analysis of Variance  
PIL Item 11 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	16.619	1	16.619	5.254	0.022	SIG
Sex	1.777	1	1.777	0.562	0.999	NS
Group x Sex	4.523	1	4.523	1.430	0.231	NS
Residual	664.191	210	3.163			
Total	689.631	213	3.238			

Based on this analysis, it was concluded that (a) there was



significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.

The difference between the constructive mean (4.99) and the destructive mean (4.39) was significant.

#### Item 12

For subhypothesis 12: "As I view the world in relation to my life, the world: completely confuses me, or fits meaningfully with my life" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 15.

Table 15  
Analysis of Variance  
PIL Item 12 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	3.137	1	3.137	1.267	0.261	NS
Sex	4.854	1	4.854	1.960	0.159	NS
Group x Sex	6.907	1	6.907	2.790	0.092	NS
Residual	519.964	210	2.476			
Total	536.510	213	2.519			

Based on this analysis, it was concluded that (a) there was no significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.

#### Item 13

For subhypothesis 13: "I am a: very irresponsible person, or very responsible person" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 16.



Table 16  
Analysis of Variance  
PIL Item 13 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	16.150	1	16.150	10.491	0.002	SIG
Sex	4.214	1	4.214	2.738	0.095	NS
Group x Sex	0.005	1	0.005	0.003	0.999	NS
Residual	323.270	210	1.539			
Total	347.232	213	1.630			

Based on this analysis, it was concluded that (a) there was significant main effect for group, (b) there was no significant main effect for sex, and (c) there was no significant interaction between group and sex.

The difference between the constructive mean (5.91) and the destructive mean (5.30) was significant.

#### Item 14

For subhypothesis 14: "Concerning man's freedom to make his own choices, I believe man is: absolutely free to make all life choices, or completely bound by limitations of heredity and environment" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and

females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 17.

Table 17  
Analysis of Variance  
PIL Item 14 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	5.666	1	5.666	1.883	0.168	NS
Sex	2.850	1	2.850	0.947	0.999	NS
Group x Sex	11.912	1	11.912	3.959	0.045	SIG
Residual	631.804	210	3.009			
Total	651.057	213	3.057			

Based on this analysis, it was concluded that (a) there was no significant main effect for group, (b) there was no significant main effect for sex, and (c) there was significant interaction between group and sex.

The difference between the destructive and constructive males ( $4.95 - 4.91 = .04$ ) is significantly different from the constructive and destructive females ( $5.12 - 4.16 = .96$ ).

Item 15

For subhypothesis 15: "With regard to death, I am: prepared and unafraid, or unprepared and frightened" the hypotheses are:

- (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive.
- (b) There are no differences between means for males and females.
- (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 18.

Table 18

Analysis of Variance  
PIL Item 15 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	0.820	1	0.820	0.262	0.999	NS
Sex	27.137	1	27.137	8.653	0.004	SIG
Group x Sex	10.607	1	10.607	3.382	0.064	NS
Residual	658.555	210	3.136			
Total	696.299	213	3.269			

Based on this analysis, it was concluded that (a) there was no significant main effect for group, (b) there was significant main effect for sex, and (c) there was no significant interaction between group and



sex.

The difference between the mean for the males (5.04) and the mean for the females (4.31) was significant.

#### Item 16

For subhypothesis 16: "With regard to suicide, I have: thought of it seriously as a way out, or never given it a second thought" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 19.

Table 19

Analysis of Variance  
PIL Item 16 by Group  
by Sex

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	PROB	SIG
Group	14.497	1	14.497	3.518	0.059	NS
Sex	3.119	1	3.119	0.757	0.999	NS
Group x Sex	16.282	1	16.282	3.952	0.045	SIG
Residual	865.292	210	4.120			
Total	897.328	213	4.213			

Based on this analysis, it was concluded that (a) there was no significant main effect for group, (b) there was no significant main effect for sex, and (c) there was significant interaction between group and sex.

The difference between constructive and destructive males ( $5.38 - 5.28 = .10$ ) is significantly different from the constructive and destructive females ( $5.65 - 4.39 = 1.26$ ).

#### Item 17

For subhypothesis 17: "I regard my ability to find a meaning, purpose, or mission in life as: very great, or practically none" the hypotheses are: (a) There are no significant differences in the means between adolescents identified as constructive and those identified as destructive. (b) There are no differences between means for males and females. (c) The difference between constructive and destructive means for males is the same as the difference between constructive and destructive means for females. The analysis of variance for this hypothesis is presented in Table 20.